

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-17. (Cancelled).

18. (Currently Amended) ~~Magnetic~~ A magnetic device comprising a spin valve, said spin valve ~~(110)~~ comprising a plurality of layers ~~(111, 112, 113, 114, 115, 116, 117)~~ arranged in a stack which in turn comprises at least one free magnetic layer ~~(111)~~ able to be associated to a temporary magnetisation (MT), a spacer layer ~~(113; 133)~~ and a permanent magnetic layer ~~(112)~~ associated to a permanent magnetisation (MP),

wherein said spacer element ~~(133)~~ is obtained according to a method of manufacturing a magnetoresistive element ~~(10; 20)~~ comprising regions having metallic conduction ~~(13; 23)~~ and regions having semi-conductive conduction ~~(11; 31)~~ wherein said method comprises the following operations:

- forming metallic nanoparticles ~~(37)~~ to obtain said regions with metallic conduction ~~(13; 23)~~;
- providing a semiconductor substrate ~~(31)~~;
- chemically etching the semiconductor substrate to form pores in said semiconductor substrate; and
- applying said metallic nanoparticles ~~(37)~~ to said semiconductor substrate having pores in order ~~(31)~~ to obtain a disordered mesoscopic structure.

19. (Currently Amended) ~~Device~~ A device as claimed in claim 18, wherein said spacer element ~~(133)~~ comprises a matrix ~~(135)~~ and nanoparticles ~~(134)~~.

20. (Currently Amended) ~~Device~~ A device as claimed in claim 19, wherein said matrix (135) is a matrix of dielectric material.

21. (Currently Amended) A device as claimed in claim 19, wherein said matrix (135) comprises a porous dielectric material, ~~in particular~~ comprising porous alumina or porous silicon, and the nanoparticles (134) are contained in pores (136) of said porous dielectric material.

22. (Currently Amended) ~~Device~~ A device as claimed in claim 18, wherein ~~it~~ the device is configured to regulate its electrical properties through the composition of said spacer layer (133).

23. (Currently Amended) ~~Device~~ A device as claimed in claim 18, wherein ~~it~~ the device is employed in TMR applications.

24-41. (Cancelled).